



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,968	10/28/2003	Brig Barnum Elliott	BBNT-P01-249	4420
28120	7590	01/22/2009		
ROPES & GRAY LLP PATENT DOCKETING 39/41 ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			EXAMINER TRAN, PHUC H	
			ART UNIT 2416	PAPER NUMBER
			MAIL DATE 01/22/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/694,968

Applicant(s)

ELLIOTT, BRIG BARNUM

Examiner

PHUC H. TRAN

Art Unit

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-34, 36-39, 41-44, and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rahmema (U.S. Patent No. 5430729) in view of Saleh et al. (Pub. No. 20050036442).

- With respect to claims 1, 8, 14, 19-21, 23, 27-28, 30, 36, 41, and 47, Rahmema teaches a communications network (e.g. Fig. 1) comprising: at least one control station configured to (e.g. SCS 28 in fig. 1): generate batches of forwarding tables (e.g. Fig. 5), each batch of forwarding tables including a primary forwarding table and a plurality of backup forwarding tables, and forward the batches of forwarding tables (e.g. exit links choices shows in Fig. 5); and

a plurality of network nodes, each network node being associated with one or more outbound and inbound links and configured to (e.g. the satellites 12 in Fig. 1):

receive a batch of forwarding tables from the at least one control station, install the primary forwarding table from the batch as a current forwarding table (e.g. the Fig. 3 shows the memory 86), the backup forwarding table being selected from the plurality of backup forwarding tables received at each respective node (e.g. Fig. 9 shows the backup link or forwarding table being selected at the node).

Rahmema explicitly fails to detect that a quality of one of an associated outbound and inbound link has changed and generate a message instructing other nodes of the plurality of network nodes to switch to a backup forwarding table associated with the detected link, transmit the message to the other nodes. Saleh teaches a VP failure detected (block 610 in fig. 6; and the failure based on number of criteria such as paragraph 33), and transmitting a failure notification to node/source node (block 560 in fig. 5). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement a method of detecting links and generating a message to nodes to switch to backup paths for protecting data and providing a Quality of Service in the network.

- With respect to claims 2-3, Rahmema discloses wherein the message identifies the backup forwarding table (see col. 20, lines 33-38).

- With respect to claim 4, Rahmema teaches wherein each of the plurality of network nodes is further configured to transmit the message to the at least one control station (e.g. Fig. 1 shows communication between satellites and SCS).

- With respect to claims 5, 12, 15, and 34, Rahmema discloses wherein the plurality of network nodes includes at least one satellite (e.g. blocks 12 in Fig. 1).

- With respect to claim 6, Rahmema discloses wherein the at least one control station includes a terrestrial control station (e.g. block 24 in Fig. 1).

- With respect to claim 7, Rahmema discloses wherein the at least one control station includes a space-based control station (e.g. block SCS 28 in Fig. 1).

- With respect to claim 9-11, 17-18, 25-26, 31-33, and 38-39, Rahmema teaches wherein the plurality of backup forwarding tables of each batch of forwarding tables

Art Unit: 2416

allows the corresponding node to handle a subset of all single events that can occur in the communications network (e.g. fig. 7 shows each corresponding node handle events).

- With respect to claim 13, Rahmema teaches wherein the batch of forwarding tables includes forwarding tables for at least one of Internet Protocol, Asynchronous Transfer Mode, Multi- Protocol Label Switching, fast packet switching, and Ethernet (see col. 2, lines 10-12).

- With respect to claim 16, Rahmema teaches wherein the second plurality of backup forwarding tables allows the node to continue routing data in the communications network when any of a subset of possible events occurs in the communications network (e.g. Fig. 9 shows at blocks 210 and 212).

- With respect to claims 22, 29, and 44, Rahmema discloses wherein the processor is further configured to: piggy-back the received message in a transmission to at least one other node in the communications network (e.g. block 62 in fig. 4).

- With respect to claim 24, Rahmema teaches wherein the plurality of backup forwarding tables allows the node to continue routing data in the communications network when any of a subset of possible events occurs in the communications network (e.g. Fig. 9 shows the table allows the node to select between links).

- With respect to claims 37 and 42-43, Rahmema teaches wherein the at least one event includes one of a failure and a degradation of a link in the communications network (see col. 3, lines 1-10).

Art Unit: 2416

3. Applicant's arguments with respect to claims 1-47 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571)272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUC H TRAN/
Examiner, Art Unit 2616

